

Site #3 is at the trailhead for Route G, the proposed ORV trail to the northern part of the Willow Mountain Critical Habitat Area (see Map 8). The exact site will be located when the trail is designed. The site should be large enough to provide parking off the Willer-Kash Road at the trailhead.

Recreation analysis of Little Willow Creek crossing. The Willer-Kash Road extension (see Route A in Roads, Trails, and Public Access section of this chapter) will cross Little Willow Creek with a permanent bridge. This crossing is likely to increase recreational use of the creek. The creek supports pink, chum, coho, and king salmon, rainbow trout, and grayling. Above the Parks Highway, the creek is currently open for fishing under DFG regulations for all these species except king salmon.

Before final design of the proposed creek crossing, DNR and DFG will determine the potential of the creek for boating and fishing. In particular, DFG will determine what species of resident sport fish are present, and whether the resident fish populations can support a recreational fishery. DNR will determine if the creek near and below the bridge site is usable for floating or motorized boating. This information will be used by DNR to determine parking, picnicking, or other recreational facilities needed near the stream crossing. The study will also consider the pattern of access downstream from the crossing and its likely effect of recreation and fishing along the creek. The crossing should be as close to perpendicular to the creek as is feasible and prudent.

REMOTE CABINS

Remote cabins (AS 38.05.079) are intended for use in areas distant from road access. Because of existing and proposed road access, remote cabin permits are not allowed in the Kashwitna Unit.

ROADS, TRAILS, AND PUBLIC ACCESS

Public access

Status of access routes. Existing year-round public roads extend north from the Willow Creek Road into existing homesteads in Subunit c and to Iron Creek in Subunit b (see Map 8). Additional roads and ORV trails proposed by this plan are summarized in this section.

The general route proposed for the Willer-Kash Road will be reserved through a right-of-way. Additional field research will be necessary for detailed design of the final route of the Willer-Kash Road and the location of the other proposed routes. Detailed road layout will be reviewed through interagency and public comment on Forest Management Reports and rights-of-way.

Construction of these routes will depend on funding. Roads could be built by state or borough agencies or by private parties. This plan does not guarantee funding for construction of these roads.

Access to homesteads and developments. Access should be provided prior to agricultural homestead disposal or resource development. This plan provides general recommendations for transportation routes to meet the needs of the various resources. However, much more detailed route alignment and feasibility analysis will be required before the routes can be considered final.

Section line easements will not be vacated unless appropriate substitute access can be located. However, locating realistic substitute access is encouraged. Substitute access can be by trail easement, but in cases where heavy use is expected, access should be through publicly

KASHWITNA MANAGEMENT PLAN

Map 8
Proposed Road and Trail Access

Permanent roads

Temporary roads

ORV trails

(A) Letters correspond to route descriptions in Chapter 3.

(F) Optional routes. Final route will be chosen after corridor analysis. See Chapter 3 for description of options for route F.

Plan boundary

LAND OWNERSHIP within plan boundary:

State land

Borough land

Private land

EXISTING ACCESS:

Permanent roads

Trails

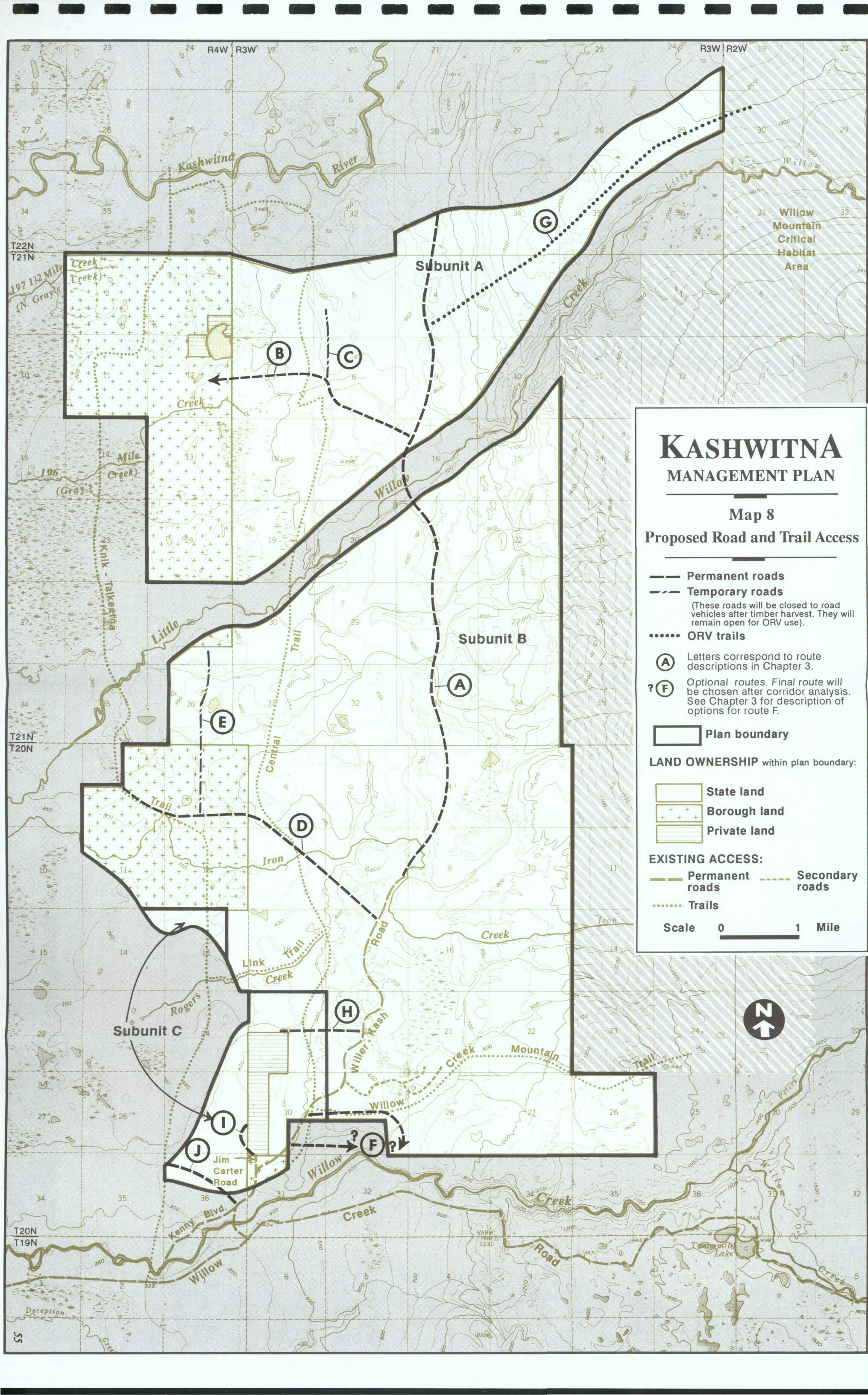
Secondary roads

Scale

0

1

Mile



owned corridors. Determination of the adequacy of substitute access should involve consultation with the DNR Division of Parks and Outdoor Recreation, DFG, DOT&PF, and the Borough. Approval from DOT&PF, DNR, and the Borough is required to vacate a section line easement.

Access to public resources. Trail and road access to recreation, fish and wildlife, and other public resources should be maintained or improved during agricultural homestead and sub-surface development.

Access in mining areas. Access should be designed to minimize the potential for trespass, vandalism, or other public nuisance in mining areas.

Proposed road and trail routes

New routes. This plan recommends construction of a main north-south access road, and subsidiary routes to access borough lands, agricultural homesteads, timber, and the Willow Critical Habitat Area (see Map 8). Access points to the main road should be consolidated and minimized. The new routes in this plan are general corridors only. Detailed design and on-the-ground site review will be needed before actual routes are located.

Route A: (Willer-Kash Road) This is the main north-south route through the Kash-witna Unit. It extends the existing Willer-Kash Road to the northern boundary of Subunit a. It provides access to timber, fish and wildlife habitat, trailheads, and recreation opportunities along Little Willow Creek. It is intended to be a permanent, public access road with a 100-foot right-of-way. Final design of this route will follow the recreation analysis for the Little Willow Creek crossing (see Recreation Analysis of Little Willow Creek in the Recreation section of this chapter).

Route B: Route B provides permanent, public access to borough lands. The route branches west from the Willer-Kash Road, then continues west into the borough lands in Subunit a. It would provide access to borough land and state timber in Subunit a.

Route C: This route branches north from Route B in Subunit a. It provides access from the main road to state timber resources. It is intended to be a temporary secondary road. After timber harvesting is complete, the road will be closed to vehicle traffic and will remain open for off-road vehicle use.

Route D: Route D extends west from the Willer-Kash Road in Subunit b. About one mile would be an upgrade of the existing Knik-Talkeetna off-road vehicle trail and about one mile would be an upgrade of the Central Trail. The remainder of the route would be a new route. Route D would provide access to borough land and state timber in the western part of Subunit b.

Route E: This is a short branch road from Route D north to access state timber resources in the northern part of Subunit b. It will be a temporary, secondary road. After timber harvesting is complete, the road will be closed to road vehicle traffic.

If borough land in T21N R4W section 25 south of Little Willow Creek is not exchanged with the state, Route E may be extended and upgraded to a permanent road to provide access to this borough land. If all borough land south of Little Willow Creek in this section is exchanged for land elsewhere in the borough, Route E will remain a temporary route. It will be put-to-bed after timber harvesting is complete.

Route F options: Route F provides permanent public access to borough lands on the north side of Willow Creek. There are two options for Route F. Only one of these

routes will be built: after the preferred route is chosen, the other will be removed from the map of potential routes.

Upgrading the lower portion of the Willow Creek Mountain Trail for road vehicle travel and adding a spur south from the trail. The trail upgrade would not extend further east than the section line dividing sections 27 and 28, T20N R3W.

Constructing a new route that extends southeast from the Willer-Kash Road between Willow Creek and the Willow Creek Mountain Trail.

The Willow Creek Mountain Trail is a popular route for ORV access to the Willow Critical Habitat Area. If feasible, the preferred road route will not upgrade the existing trail.

Site-specific corridor analysis is necessary before a location is chosen for Route F. Corridor analysis generally includes a detailed review of site and environmental characteristics (for example, soils, wetlands, and slopes), cost, fish and wildlife, the existing and future transportation system, land use, and user origins and destinations. New road construction requires approval by the Borough Planning Commission. The commission's review process for new road construction usually includes a public hearing.

Route G: Route G is a new ORV trail branching east from the Willer-Kash Road in Subunit a. It provides ORV access to the Willow Critical Habitat Area north of Little Willow Creek. The western end of the trail may be used as a temporary secondary road for timber access in the eastern half of Subunit a. When not in active use for timber transport, the timber access road will be put-to-bed and closed to road vehicle use, but will remain available for ORV travel.

Route H: Route H is a short branch road from the Willer-Kash Road west to Subunit c. It provides access to existing and proposed agricultural homesteads. It is intended to be a permanent, public access road.

Route I: Route I is a short continuation of the Jim Carter Road to provide access to agricultural homesteads in Subunit c. It generally follows the section line but will be designed to minimize crossings of wetlands.

Route J: Route J is a spur road that branches northwest from the Willer-Kash Road in the southern part of Subunit c. It will provide access to agricultural homesteads in Subunit c and in the adjacent Iron Creek unit.

Additional roads. Additional spur roads, and possibly secondary roads, will be needed for access to and within timber sales. Design for secondary roads will be reviewed through interagency and public comment on the five-year schedule of timber sales and Forest Management Reports for individual sales, and interagency comment on rights-of-way. Unless otherwise specified in this plan or a Forest Management Report, secondary and spur roads will be put-to-bed. The Susitna Forestry Guidelines on access apply to timber access in the Kashwitna area.

Protection of potential routes. The borough and state should avoid actions incompatible with the construction of potential routes until such time as final decision is made on the feasibility/ appropriateness of the routes.

Coordination with landowners. Alignment of transportation corridors should be coordinated with all public and private agencies with jurisdiction over the affected land and resources.

Rights-of-Way size and permitted uses. The width of major road rights-of-way should be determined on a site-specific basis. However, rights-of-way should be sufficient to accommodate recreation trails within the rights-of-way but not directly adjacent to the road, future road expansion, and the addition of miscellaneous utilities. Minor road rights-of-way should be sufficient to accommodate recreational trails only when the road replaces an existing trail.

The vacant portions of rights-of-way other than the right-of-way for the Willer-Kash Road should be used for selective timber harvest or leased for agricultural purposes if such uses do not create hazards or impair necessary visual screening. (See guideline on Willer-Kash Road Management in the Forestry section of this chapter.)

Timber salvage from the right-of-way. All timber having high value for commercial and personal use will be salvaged on rights-of-way to be cleared for construction.

Roads.

Roads near Little Willow Creek. Roads will not be located parallel to Little Willow Creek within 1/2-mile of the creek to minimize adverse impacts on riparian habitat and public recreation along the creek.

Public use of roads. Roads proposed in this plan will be available for public use except during spring break-up or other conditions when the roadbed would be damaged by vehicle traffic or when necessary to protect public safety, sensitive wildlife populations, or other public resources along the road. [Note: Regulations for road closure are currently being developed by DNR. When adopted, they will guide road closure decisions statewide, including closures in the Kashwitna area. Public notice is required prior to adoption of regulations.]

Road design. Along permanent roads, adequate pullouts will be provided for public safety and passage of 2-way traffic, including off-highway parking where necessary. When one-lane roadways with two-directional traffic are designed, turnouts for passing should be provided. Traffic convenience requires that such turnouts be intervisible, provided on blind curves, and no more than 1000 feet apart. Where road corridors contact streams, habitat corridors or other areas of expected recreational usage, sufficient acreage should be retained in public ownership to accommodate public access, safety requirements, and expected recreational use.

Interagency consultation. The lead agency for road construction will consult the DNR Division of Parks and Outdoor Recreation and the Department of Fish and Game on design of pullouts and parking areas along permanent roads. During the design of roads, DFG will provide recommendations on road alignment to avoid wetlands and sensitive wildlife habitats. The size and location of pullouts should be determined in consultation with the DNR Division of Parks and Outdoor Recreation and DFG.

Location of spur roads. The DNR Division of Forestry will identify spur roads in Forest Management Reports. DFG and the DNR Division of Parks and Outdoor Recreation will evaluate proposed spurs case-by-case, provide comments on spur location and on needs for trails that could be provided by spur roads built under logging contracts. Spur roads outside existing rights-of-way may require additional right-of-way permits or land use permits if spur roads are intended for permanent road or trail use. If spurs are intended for winter use only, additional right-of-way permits may not be necessary.

Check dams. Check dams should be considered in steep portions of permanent roads to minimize erosion and runoff from the road.

Road clearing. Clearing methods shall prevent trees and brush from being mixed with dirt to form undesirable berms.

Road surveys. The agency or individual constructing a permanent road will provide an as-built survey to the DNR Division of Land and Water following construction.

Protection of the hydrologic system. Transportation corridors should be located to avoid influencing the quality or quantity of water in adjacent streams or lakes, and avoid detracting from recreational use of the waterway. General guidelines for road development follow.

[Note: Regulations in 11 AAC 95.110 also govern development of timber access.]

1. Minimize stream crossings - especially anadromous fish streams.
2. Wherever possible, avoid routing roads parallel to and within 100 feet of any waterway or parallel to and directly upslope from any waterway.
3. Leave sufficient space on either side of roads for buffers when routing near streams and wetlands. Buffers will vary with the degree of potential erosion hazard, but all buffers should be at least 100 feet. Where existing buffers lack sufficient protective vegetation, more effective vegetation should be planted.
4. When it is absolutely necessary to cross a water way, position the crossing as nearly as possible at a 90° angle, or perpendicular to the water channel.
5. Road crossings of streams must provide for fish passage consistent with AS 16.05.840. Bridges are the preferred type of stream crossing. All water crossings (bridges and culverts) should be large enough and positioned to avoid: 1) changing direction and velocity of stream flow, and (2) interference with migrating or spawning activities of fish and wildlife. In addition, all bridges and culverts on permanent roads should be large enough to accommodate the 50-year peak discharge without interfering with volume, velocity and sediment transport or substrate characteristics of the stream. Bridges should provide adequate clearance for boat, pedestrian, horseback, and large game passage whenever these uses occur or are anticipated.
6. Construction or construction activities should not encroach upon streams.
7. Road drainage should not be discharged directly over the edges of the streambanks. Diverted flows from road gutters should be provided with adequate outlets.
8. Vegetative cover along streambanks should be encouraged, so long as it does not restrict channel capacities.
9. When routing through wetlands or peat, culverts should be installed to enable free movement of substances such as fluids, mineral salts, and nutrients.
10. Construction should be confined, whenever possible, to level, well-drained areas. In potential problem areas, excavation and soil disturbance should be minimized.
11. Routing should be avoided in severe hazard erosion areas (steep slopes) - especially those directly above or adjacent to wetlands or water ways.
12. When it is necessary to route through erosion hazard areas (primarily slopes greater than 12%), runoff, erosion, and sedimentation should be minimized by methods such as vegetative coverings, surface roughening, and diversion dikes.
13. Construction should be minimized in poorly drained areas - particularly lowlands and peat. Construction should be minimized in areas of sandy or gravelly soils where the seasonal water table comes within a maximum of four feet of the surface and in areas of silty soils where the water table comes within a maximum of three feet from the surface.

Trails.

Recreation and historic trails: Trails identified in this plan shall be retained in public ownership with a width of 300 feet (150 feet either side of centerline) on state land. This distance may be modified on a case-by-case basis with approval of the DNR Division of Parks and Outdoor Recreation and the Matanuska-Susitna Borough Trails Committee. This width allows flexibility to re-route the trail, separate motorized and non-motorized uses, and include a visual buffer. Re-routing the trail corridor may be permitted to minimize land use conflicts if alternate routes provide opportunities similar to the original. Re-routing trails on public land requires consultation with the Matanuska-Susitna Borough Trails Committee, the DNR Division of Parks and Outdoor Recreation, and DFG. On borough land, the Matanuska-Susitna Borough Planning Commission and Assembly determine the width of rights-of-ways for trails.

Identified trails. Trail corridors are established by this plan along the following trails (see Map 8):

- Knik-Talkeetna Trail
- Central Trail
- Link trail from Knik-Talkeetna Trail to Central Trail
- Willow Creek Mountain Trail.

Land management of trail corridors. Where necessary for powerlines, pipelines, or roads to cross trail corridors, crossings should be at 90° angles when feasible. An exception is when a trail corridor is deliberately combined with a public facility or transportation corridor. Land uses immediately adjacent to the trail corridor should not adversely affect the recreational enjoyment of the trail. Examples of negative effects are trees blown down within the corridor caused by removal of protective trees on adjacent land; pollution of streams that flow across or along the corridor caused by agricultural, industrial, resource extractive or residential development; and uncomfortable noise, light, dust, smoke, or odor levels adjacent to the trail corridor.

ORV management and special use area. A rapid increase in ORV use of the Kashwitna Unit is expected to follow improved access. To prevent damage to wetlands, streambanks, and other areas with poorly drained soils, prevent erosion and wildlife disturbance or displacement, and provide access to public lands, DNR will establish the Kashwitna Unit as a special use area under 11 AAC 96.010. The special use area will be established after mapping existing trails and analyzing trail use (see Special Use Area, Chapter 4). Public notice is required before a special use area is established. The following guidelines will apply in the special use area. These guidelines will not be enforced until the special use area is established. The special use area will not apply to borough land unless specifically approved by the Matanuska-Susitna Borough Planning Commission and Assembly.

1. DNR, in cooperation with DFG and the Matanuska-Susitna Borough, will map trails in the Kashwitna Unit and designate certain trails for ORV use. ORV trails will be designated based on their ability to support year-round ORV use without damage to public resources and on the need for public access.
2. Off-road vehicle use is allowed throughout the Kashwitna Special Use Area when snow cover is sufficient to prevent damage to surface vegetation. The general standard for adequate ground protection from vehicle damage will be one foot of snow and one foot of frost. This standard may be varied to allow for variation in winter conditions. For example, deep snow may prevent freezing but provide adequate ground protection. If the ground is not frozen to a depth of at least one foot, addi-

tional snow depth is required before winter ORV travel can occur.³ In addition, "dozers, sleighs, tracked vehicles, and rubber tired equipment" must comply with the statewide Coastal Management Program guidelines for cross-country travel during winter.

3. When snow cover is not sufficient to prevent damage to surface vegetation, off-road vehicle use is allowed only on designated ORV trails or by permit. Permits are intended to allow access for commercial mining only. Permits for off-road access will be issued for access to active mining claims to carry out mining operations authorized by a miscellaneous land use permit or an approved plan of operations.

In the event the above guidelines fail to control significant damage to surface vegetation, soil erosion, or fish and wildlife habitat, one or more of the following restrictions may be applied: 1) bridging or active trail maintenance to curb damage, 2) trail relocation, 3) prohibition of specific vehicle types, 4) temporary or permanent trail closures, 5) trail designations for specific uses, or 6) authorization of ORV use by permit only.

Maintenance of roads used as ORV trails. Secondary timber access roads that are not identified as permanent roads will be closed to vehicle traffic after timber harvest, but will remain available for use as ORV trails. These roads require berms, cables, gates or other methods to restrict vehicle access to the road. Roads remaining open for ORV use should follow well-drained routes wherever possible. Drainage structures should be inspected and maintained as long as the roads are open to ORV use. Inspection schedules will depend on funding for field work. If organic soil is removed during construction, exposed gravel or mineral soil may be left on the surface to support ORV use rather than replacing the overburden.

WATERBODIES

Guidelines for management of lands along streams and lakeshores in the Susitna Regional Forest Plan and Forest Practices Act apply to the Kashwitna area. These guidelines prohibit timber harvesting within 100' (30m) of anadromous and high value resident fish waterbodies, and require that timber harvesting between 100' and 300' (30m and 90m) from these waterbodies be consistent with the maintenance of important fish and wildlife habitat. See Map 9 for the waterbody locations.

See also the following guidelines in this chapter for protection and management of waterbodies.

Agriculture -- Stream corridors

Fish and Wildlife Habitat -- Maintenance of the hydrologic system

Forestry -- Harvesting along waterbodies, Harvesting along Little Willow Creek, and Notification of Salmon Spawning

Grazing -- Riparian zones and waterbodies, Riparian buffers and access to certain waters

Materials -- Material sites

Recreation -- Recreation analysis of Little Willow Creek crossing

Roads, Trails, and Public Access -- Roads near Little Willow Creek, Protection of the Hydrologic System

³Daily information on accumulated snow depth is collected at the weather station in Willow and is available from the National Weather Service.